



Syngenta (Berkshire)

Teacher perspective - Laura Manning



'I am the curriculum leader for biology at UCL Academy, and I chose to spend my half term on work experience at the global agro-chemical firm Syngenta. I went to their main research and development site near Bracknell to gain an insight into how fundamental science theory learned by students at GCSE and A level is actually used in industry; the range of STEM careers available, and how different departments all contribute expertise in their area to come up with solutions.

I had a fascinating week being hosted by scientists with very different backgrounds, interests and responsibilities. Syngenta produce crop protection chemicals and finding out about the amount of work involved in developing, testing, analysing and formulating these chemicals was really interesting. Some highlights of my week included: using the electron microscopes to investigate the structure of a weed flower head, visiting the entomology department where crop pests are bred to screen chemicals, pollinating wheat in an attempt to breed more productive strains, and learning about the work done by the product safety team who model and monitor the environmental toxicity of compounds. I also took part in lots of lab work, gained hands-on experience of key experimental skills

used every day by these scientists, and saw the wide range of robots and machinery that are used to help.

As a result of my placement, I am now much better informed about what it is to be a scientist, which will help me develop careers guidance activities for my students who might be considering STEM careers. I can also use specific examples of experiments and theory I encountered to enhance the curriculum for students, so that they can see how what they learn in lessons can be applied in the real world. Finally, the whole product development pathway is an excellent example of interdisciplinary collaboration, and really highlights how the skills we emphasise in our work, on big ideas and the grand challenges, are essential in the business world.

I really enjoyed my week and think the STEM Insight scheme is a really valuable thing to be involved in. It certainly has led to lots of ideas of how to enthuse students in their science lessons, and hopefully inspire more students to consider a career in science. Many thanks to Syngenta for hosting me.'

Employer perspective - Jim Morton (Visits and Outreach Manager)

'Our vibrant community of enthusiastic scientists hope to inspire teachers with fresh ideas for the classroom, demonstrate exciting new techniques and technologies and share their real life experiences of industry. As part of our ongoing commitment to communicating the role our technology plays in society, we are able to provide insights into current and future research activities, highlight the diversity of scientific career routes to support the development of the next generation of scientists and maintain industry links to the school for the future. We all recognise that our careers started with the same beginnings and have a strong desire to give something back to the future of science.

Key activities covered during the placement include an overview of the discovery of new active ingredients, new formulation technologies, product safety, technical support of our product range and seeds research.

The site houses a number of centres of scientific excellence, both chemical and biological, that partner with the UK and global research base to support our global activities and keep our science world-class. Innovation is at the heart of Syngenta's R&D strategy and from there follows our wish to support an exciting pipeline of future scientists!'

We host as many as 50 work experience students and a number of school groups at Jealott's Hill during the year and the STEM Insight programme builds on that. It is a great opportunity for us to engage directly with teachers and to promote the opportunities that are available to students studying STEM subjects. It really is a 'gift that keeps on giving' – the teachers will have a number of classes across multiple year groups and also interact with other teachers so that the insights they have gained during this week will be shared more widely. This was all made possible by the great enthusiasm shown by our scientists during the week and their commitment to stay in touch with the teachers.'

Syngenta is one of the world's leading agricultural businesses. High-yielding seeds and innovative crop protection products help farmers around the world to get more from their land and preserve ecosystems. To find out more please visit www.syngenta.com. Jealott's Hill International Research Centre is a key site in Syngenta's global Research and Development network. With over 85 years tradition of innovation, it is the company's largest site for new agrochemical R&D, product support and home to more than 800 scientists in a range of Biology and Chemistry-related disciplines.